Section: Pulmonary Medicine

Case Series

A CASE SERIES ON UNUSUAL PRESENTATION OF USUAL INTERSTITIAL PNEUMONIA WITH REVIEW OF LITERATURE

Vijayakumar[1], Veerendra Arya[2], Kunal Ranjan[3], Shubham Mishra[4], Pavan Shukla[3]

[1]Senior Resident-SEPM, NSCB Medical College and Hospital, Jabalpur, Madhya Pradesh, India
[2]Associate Professor, Department of Pulmonary Medicine SEPM NSCB Medical College Jabalpur, Madhya Pradesh, India
[3]Senior Resident, Department of Pulmonary Medicine, SEPM, NSCB Medical College, Jabalpur, Madhya Pradesh, India
[4]Assistant Professor, SEPM, NSCB Medical College, Jabalpur, Madhya Pradesh, India

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Corresponding Author:
Dr. Shubham Mishra,
Email: mishprince44@gmail.com

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Abstract

Here we discuss about a 3 cases of unusual presentation of usual interstitial pneumonia with review of literature. Diagnosis and treatment of the same has been discussed. Study Design is Case series with review of literature. Place of Study is SEPM – NSCB Government Hospital, Jabalpur, MP.

INTRODUCTION

Hypersensitivity pneumonitis (HP) is an immune-mediated interstitial lung disease (ILD) attributed to inhalation of and sensitization to organic antigens.[1] While over 300 antigens have been associated with HP, an inducing antigen may be unidentifiable in up to 30% cases.[2]

Antigen identification and avoidance are essential for optimal treatment as prognosis is worse among patients with chronic HP when an offending antigen is not identified.[1]

HP was the most commonly diagnosed ILD in 47.3% of patients in the ILD-India registry, which is the largest and first prospective study to describe the pattern of ILD diagnoses among patients with new-onset ILD from multiple centers in India using the 2011 guidelines for idiopathic pulmonary fibrosis (IPF) and revised classification of idiopathic interstitial pneumonia (IIP).[3]

Cases description:

Case 1:

A 30 year old male, came with chief complaints of shortness of breath, dry cough and loss of appetite for past 4 months. No history of tuberculosis or any respiratory illness in the past. No history of any metabolic co morbidities in the past. History of Over the counter (OTC) drug usage from many pharmaceuticals present. Since the patient doesn't have any improvement he came to our tertiary care centre in Jabalpur. He is a manual labourer by occupation and nonsmoker. No allergic history. He is married and has 2 sons. No similar history in the family members. On General examination, bilateral upper limb clubbing was present. On respiratory examination, patient had tachypnoea with bilateral basal fine crepts were heard. Other system examination was within normal limits.

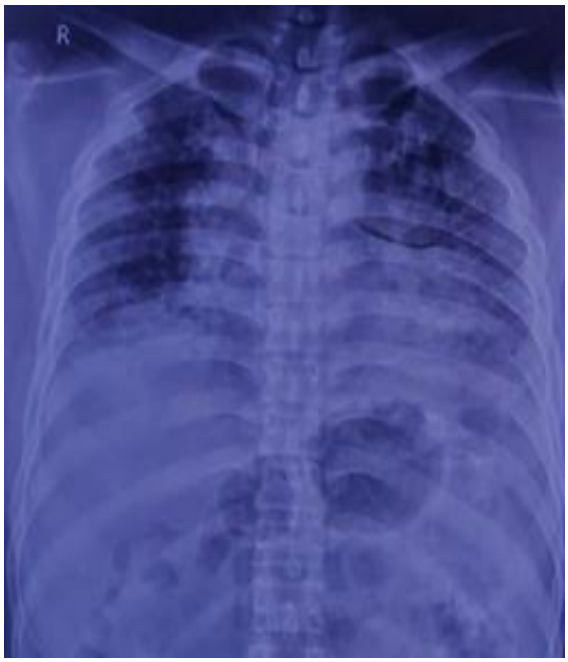

Figure 1: chest x ray – which showed bilateral (left >right) mid and lower zone heterogenous infiltrates with left heart border silhouetting.

He was subjected to battery of investigations like CBC, ECG, LFT and RFT with serum electrolytes were normal.

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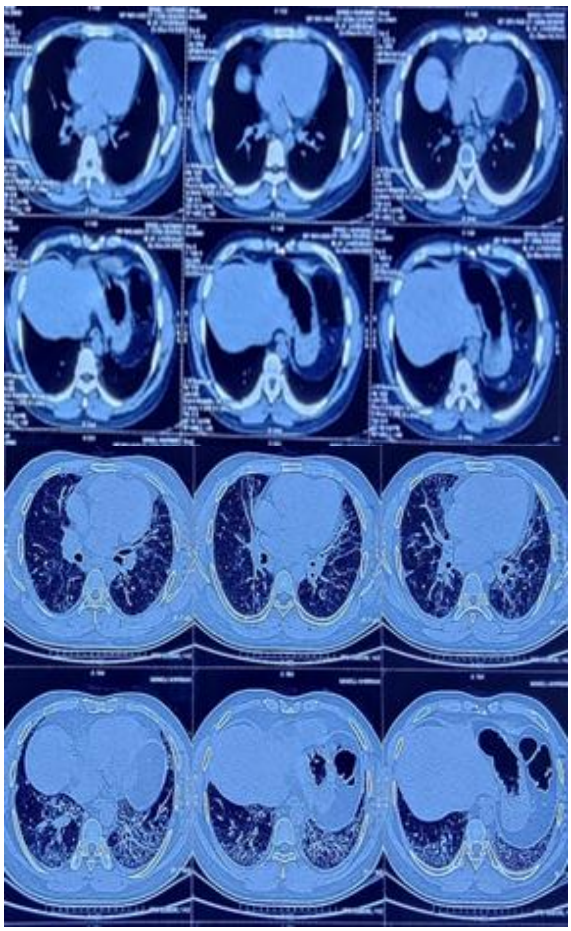


CECT chest showed Thick walled cystic lesions arranged in multiple layers in subpleural location noted predominantly in the base of both the lower lung lobes and also involving apical segment of right upper lobe and anterior segment of left upper lobe. It is associated with adjacent tractionalbronchiectatic changes. Multiple patchy areas of ill-defined reticular opacities with associated interlobular septal thickening and areas of ground-glass opacification noted predominantly in periphery of both lungs. Multiple well defined round to oval discrete non-necrotic mediastinal lymph nodes noted in prevascular. preaortic, right and lert upper paratracheal, subcarinal, bilateral hilarparaoesophageal regions.Bronchoscopy was normal and lavage was taken empirically which turned out to be normal. Patient was started on steroids and inhalers along with antifibrotics.

Case 2

A 70 year old female from central India came with chief complaints of shortness of breath, dry cough, headache and chest pain for past 3 to 4 months. No past history of Tb or any other Comorbidities. She is married and had 3 children. She attained menopause at the age of 55years. No history of any allergy to drugs, foods and pollutants as said by the patient. No similar history in the family members. On examination, she had clubbing in bilateral upper limb. On respiratory examination, she had bilateral basal fine crepts with wheeze in right interscapulararea. Patient was subjected to investigations like CBC, LFT,RFT& ECG which was normal.

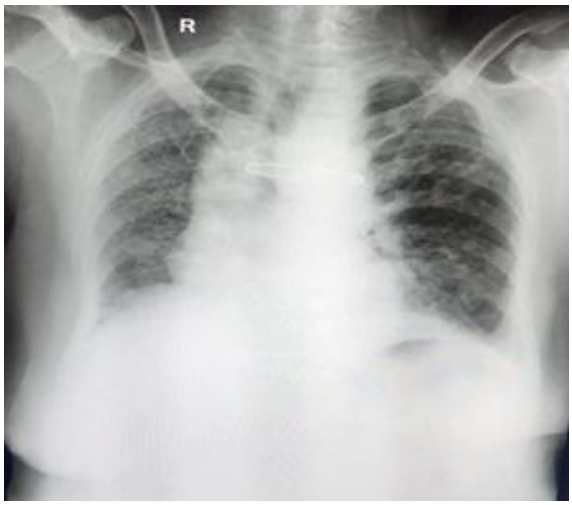
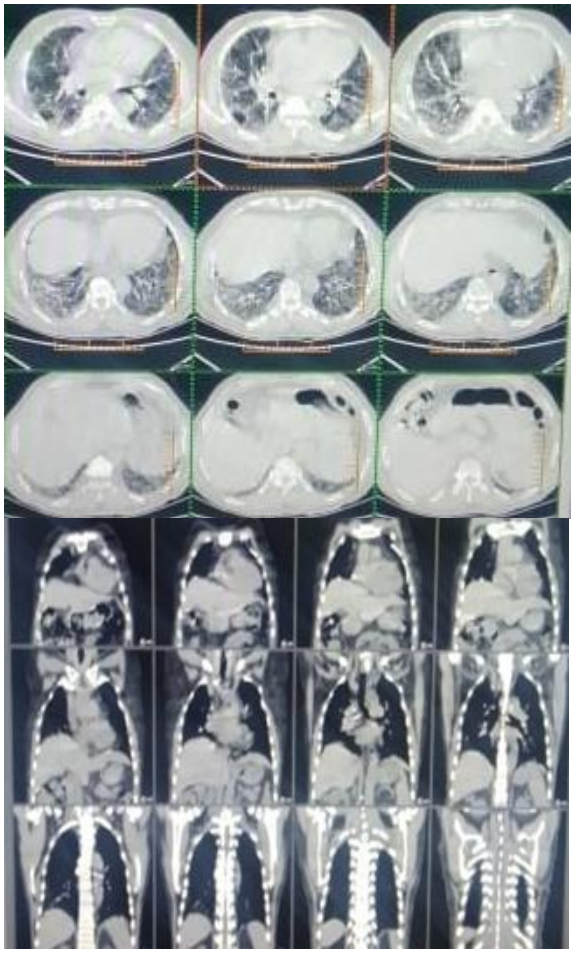


Figure 2: Bilateral lower zone heterogeneous infiltrates with right upper and mid zone involved and trachea distorted and shifted towards right side with irregular right heart border.



CECT chest showed both lungs are distended with inter and intralobular interstitial thickening and honeycombing (right >left), peripherally > centrally. Bilateral mild tubular bronchiectatic changes seen. Multiple enlarged, discrete, necrotic and non necrotic superior mediastinalprevascular spaces

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lymph nodes seen. patient was subjected to Bronchoscopy and EBUS which was insignificant. Based on the clinical and radiological investigations, patient was started on IV fluids, cough suppressants, antifibrotics and inhalers. Chest physiotherapy was taught to the patient and counselling was given.

Case 3

A 62 year old male, coming from central india came with the chief complaints of dry cough and shortness of breath for 6 months. Manual labourer by occupation and non smoker. No past history of any Comorbidities or TB or covid infections. No allergic history. He is Married and has 1 son. No similar history in the family members. On examination,patient was conscious and oriented.Patient had clubbing in bilateral upper limb. Respiratory examination showed, bilateral basal fine crepts. Other system examinations were normal.

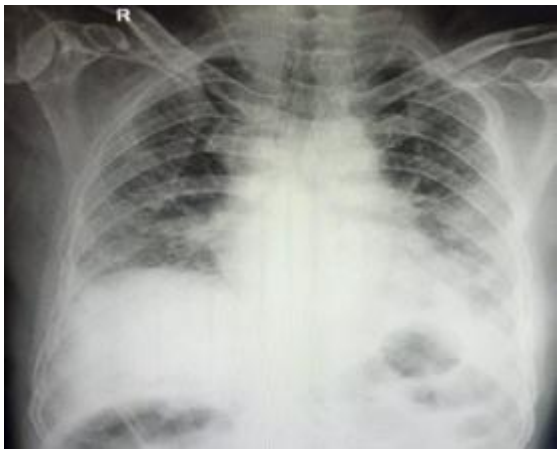

Figure 3: Chest x ray showed bilateral lower zone heterogenous infiltrates (left> right).

CBC, LFT, RFT& ECG which was normal. CECT chest showed diffuse reticular opacities opacities with interstitial thickening predominantly in bilateral lower lobes. Bronchoscopy was insignificant. hence patient was treated symptomatically with inhalers, antifibrotics and iv fluids. Patient is in observation and follow up.

Table 1

Parameters	**CASE 1**	**CASE 2**	**CASE 3**
AGE / SEX	30 /M	70/F	62/M
Duration of symptoms	4 months	3 to 4 months	6 months
Past history of Comorbidities (tuberculosis,covid infection, etc..,)	No	No	No
Occupation	Manual labourer	House wife	Manual labourer
Exposure history	No	No	No
Addiction history	No	No	No
Allergic history	No	No	No
Family history	No	No	No
General examination	Pan digital Clubbing in bilateral upper limbs	Pan digital Clubbing in bilateral upper limbs	Pan digital Clubbing in bilateral upper limbs
Respiratory examination	Bilateral basal fine crepts	Bilateral basal fine crepts with wheeze in right interscapular area heard	Bilateral basal fine crepts

Table 2

CBC, LFT, RFT and Serum Electrolytes	**WNL**	**WNL**	**WNL**
Serum ANA Profile	Negative	Negative	Negative
Chest X ray	bilateral (left >right) mid and lower zone heterogenous infiltrates with left heart border silhouetting.	bilateral lower zone heterogeneous infiltrates with right upper and mid zone involved and trachea distorted and shifted towards right side with irregular right heart border.	bilateral lower zone heterogenous infiltrates (left> right)
CECT chest	Thick walled cystic lesions arranged in	Both lungs are distended with inter	Diffuse reticular opacities

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	multiple layers in subpleural location noted predominantly in the base of both the lower lung lobes and also involving apical segment of right upper lobe and anterior segment of left upper lobe. It is associated with adjacent tractionalbronchiectatic changes. Multiple patchy areas of ill-defined reticular opacities with associated interlobular septal thickening and areas of ground-glass opacification noted predominantly in periphery of both lungs. Multiple well defined round to oval discrete non-necrotic mediastinal lymph nodes noted in prevascular. preaortic, right and left upper paratracheal, subcarinal, bilateral hilarparaoesophageal regions.	and intralobular interstitial thickening and honeycombing (right >left), peripherally > centrally. Bilateral mild tubular bronchiectatic changes seen. Multiple enlarged , discrete , necrotic and non-necrotic superior mediastinalprevascular spaces lymph nodes seen .	opacities with interstitial thickening predominantly in bilateral lower lobes.
Bronchoscopy and EBUS	No endobronchial growth or mucosal irregularity seen.	No significant findings	No endobronchial growth or mucosal irregularity seen.
BAL	No significant findings (lymphocytosis/increased CD4:CD8 ratio)	No significant findings (lymphocytosis)	No significant findings (lymphocytosis)
Surgical lung biopsy	Not feasible	Not feasible	Not feasible
Treatment	Symptomatic treatment	Symptomatic treatment	Symptomatic treatment
Prognosis	Poor	Poor	Poor
Lung transplantation	Advised and counseling given regarding the same	Advised and counseling given regarding the same	Advised and counseling given regarding the same

DISCUSSION

This case series discusses about 3 different cases with varying age of presentation with both gender involved. All the three cases presented with dry cough and shortness of breath for more than 3 months with pan digital clubbing in bilateral upper limb. There was no history of any significant exposures (like dusts, pollutants, food, drugs, etc..), No addiction history and no family history. All were married and had children. On respiratory examination, all had bilateral basal fine crepts. chest x ray showed bilateral lower zone involvement. CECT chest showed bilateral lower lobe reticulations with interstitial thickening. Bronchoscopy and EBUS showed No endobronchial growth or mucosal irregularity seen. Hence, based on clinic-radiological basis, the above cases were considered as UIP (non IPF type of UIP) with no known etiology. So they were treated symptomatically and antifibrotics. Counseling and physiotherapy were explained to the patients and the family members.

CONCLUSION

All UIP pattern is not always synonymous with IPF. Hence, whenever we come across UIP pattern, we have to evaluate the patient for all possible etiologies (pneumoconiosis, post COVID, post tubercular, post radiotherapy, post chemotherapy, etc...) pertaining to UIP before labelling the patient as IPF.

Good patient education and counselling in such type of atypical presentations will save the patients resources (money, etc ..) and quality of time. Also, Patient should be properly educated about the role of lung transplantation (irreversible lung disorders) and its complications, affordability, accessibility,etc..

So, timely diagnosis of the patient and proper management with surgical interventions in irreversible lung diseases can be a life saviour in many patients.

Hence , we have discussed in this case series about 3 such atypical presentation of UIP (non ipf type of UIP) with review of literature.

REFERENCES

1. Fernández Pérez ER, Swigris JJ, Forssén AV, Tourin O, Solomon JJ, Huie TJ, et al. identifying an inciting antigen is associated with improved survival in patients with chronic hypersensitivity pneumonitis. Chest 2013;144:1644 51.
2. Hanak V, Golbin JM, Ryu JH. Causes and presenting features in 85 consecutive patients with hypersensitivity pneumonitis. Mayo ClinProc2007;82:812 6.
3. Travis WD, Costabel U, Hansell DM, King TE Jr., Lynch DA, Nicholson AG, et al. An official American Thoracic Society/ European Respiratory Society statement: Update of the international multidisciplinary classification of the idiopathic interstitial pneumonias. Am J RespirCrit Care Med 2013;188:733 48.

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